

IN THE CLAIMS

Please amend the claims as follows.

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(DV)
1. (Currently Amended) A method for detecting ~~assaying for an antibody immunological~~ response in a mammal comprising:
 - (a) administering to the mammal a chemical probe for an antibody-generated reactive oxygen species;
 - (b) obtaining a sample from the mammal; and
 - (c) analyzing the sample for an oxidized chemical probe to ~~thereby~~ detect whether there is an antibody ~~the immunological response in the mammal~~; wherein the reactive oxygen species comprise oxygen with one or more unpaired electrons.
 2. (Previously Presented) The method of claim 1, wherein the chemical probe is an alkene that can be oxidized during an immunological response in the mammal.
 3. (Original) The method of claim 1, wherein the chemical probe is 3-vinyl-benzoic acid, 4-vinyl-benzoic acid, indigo carmine, stilbene, or cholesterol.
 4. (Cancelled)
 5. (Original) The method of claim 1, wherein the reactive oxygen species is a superoxide radical, hydroxyl radical, peroxy radical or hydrogen peroxide.
 6. (Previously Presented) The method of claim 1, wherein the reactive oxygen species is ozone.
 7. (Original) The method of claim 1, wherein the sample is a bodily fluid.